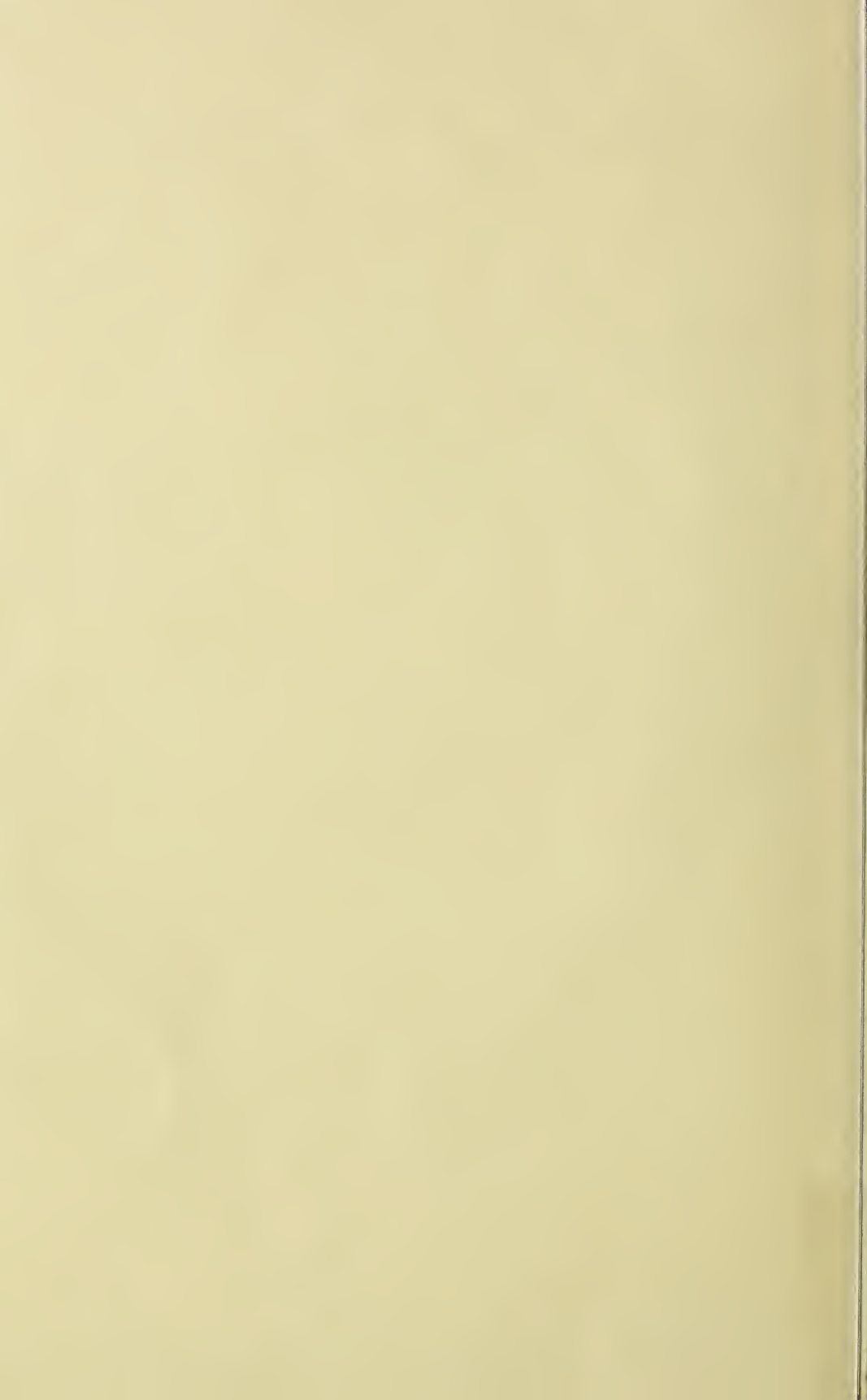


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THE MARYLAND FARMER:

DEVOTED TO
AGRICULTURE, HORTICULTURE,



LIVE STOCK
and RURAL ECONOMY.

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No. 11.

Editorial Letter No. 2.

THE MAINE STATE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS.

There were few places visited during my Northern trip this summer, which gave me more delight and instruction than that to the Maine State College of Agriculture and the Mechanic Arts. This college is located about one mile equi-distant between the villages of Orono and Stillwater, with the Stillwater river flowing in front of the college and forming the western boundary of the farm, and is a tributary of the Penobscot river. This institution is admirably conducted by President M. C. Fernald and a corps of highly enlightened and educated professors, to all of whom I was introduced severally by the courteous president himself, who seems indefatigable in his exertions to show to visitors the entire workings of the college, both in-doors and out-doors. The farm contains 375 acres of great natural productiveness and diversity of soil, well adapted to the experimental purposes of the institution. The principal buildings are "White Hall"—the college proper—the Laboratory, and the "Brick Hall," and the "Work-shop," devoted to instruction in three departments of mechanical work, viz: filing, forging and working in wood. These buildings furnish desirable accommodations for 125 students.

The library is an excellent one of 5,000 volumes, and well arranged and kept and

is steadily increasing in size. This library has been formed by individual contributions, chiefly through the liberality of ex-Governor Coburn.

Military instruction is given by an officer of the U. S. Army, who, at present is Lieut. E. W. Howe, whose genial courtesies on our return trip to Bangor we duly appreciate. The college has valuable apparatus for the departments of Physical Geography, Chemistry, Physics, Surveying, Civil Engineering and Mechanical Engineering. Models have been obtained from U. S. Patent Office, and others purchased, that serve for purposes of instruction. There is also a splendid and complete set of brass weights and measures of all descriptions recognized by the laws of the United States, furnished by act of Congress to each agricultural college in the Union, which has received a land grant from the United States, by applying for the same through the State Governor. By the way, has our State Agricultural College ever received this valuable donation from the General Government? During our inspection of this college, we saw nothing that was objectionable to any of the senses, but all was neat, clean, and admirable, order and system seemed to prevail everywhere and in every place. The same may be said of the farm and its appertenancies. We can not refrain from giving a few extracts from the report of the farm superintendent, Gilbert M. Gowell, for 1883:

"The acreage of the principal crops and their yields is as follows:

Grass 70 acres	155 tons
Barley 5 "	190 bushels
Oats 20 "	813 "
Beans 5½ "	56 "
Potatoes 8 "	1190 "

In addition to the above, one and one-half acres were used in testing different varieties of crops, seeds, and to garden purposes. Twenty five acres were seeded to grass and clover, and a good stand secured.

EXPERIMENT IN POTATO SEEDING.

Very large and very small potatoes were selected and planted whole. Medium sized ones were cut through the center, leaving seed end on one piece and stem on the other, and all planted alike.

	large 135 lbs	small 16 lbs.
Large potatoes yielded per plat	90 "	8 "
Small " " "	151 "	16 "
Seed end " " "	150 "	8 "
Stem end " " "		

Fertilizer and feeding tests have been carried on during the year, an account of which may be given hereafter in the MARYLAND FARMER.

ANIMALS.

"Earnest efforts have been made to improve the stock, and there are now forty cattle, twenty-four of them being thoroughbred.

"In managing the stock, it receives nearly all its food from the barn throughout the year, but little dependence being placed upon the very limited pasturage aside from the opportunity it affords for recreation.

"There has been an average of twenty-two cows and heifers in the dairy during the year. They have furnished 117,695 lbs. of milk, 109,290 lbs. of which have been made into butter, producing 6,017 lbs., thus requiring 18.25 lbs. of milk to produce one pound of butter. Had no milk or cream been sold, the amount of butter to each cow must have approximated very closely to three hundred pounds.

Butter sold for	\$1,839 73
Milk and cream sold for	236 91
Value of calves at birth	130 00

Total, ——— \$2,206.64

"This gives a gross income to each cow of \$100.30. More than one-half of these animals are young, not yet having arrived at maturity."

In conversation with President Fernald, we learned that at this time there were 82 students in daily attendance in the different classes. There is a nice reading room

for literary recreation where a large number of newspapers and periodicals are furnished mostly gratuitously, among which will be found the MARYLAND FARMER.

LABOR.

"It is a characteristic feature of the college, that it makes provision for labor, thus combining practice with theory, manual labor with scientific culture.

"The maximum time of required labor is three hours a day for five days in the week.

In the lowest class the students are required to work on the farm, and they receive compensation for their labor according to their industry, faithfulness and efficiency, the educational character of their labor being also taken into account. The maximum price paid is ten cents an hour. The labor is designed to be as much as possible educational, so that every student may become familiar with all the forms of labor upon the farm and in the garden.

The students of the three upper classes carry on their principal labor in the laboratory, the drawing rooms, the work shops, or in the field, and for it they receive no pecuniary consideration, since their labor is of a purely educational character."

This course is designed to fit young men to follow agriculture as a profession, with success, as well as to prepare them for the intelligent performance of the duties of citizenship.

To this end, the curriculum of studies is largely scientific and technical, not omitting however, those branches that have been referred to as pertaining to social and civil relations.

The instruction in agriculture is given largely by lectures, and embraces subjects of great practical importance to the farmer, which are briefly explained under the following heads:

Agricultural Engineering; Agricultural Chemistry; Landscape Gardening; Cultivation of Cereals; Dairy Farming; Sheep Husbandry; Botany; Chemistry; Zoology and Entomology.—In Zoology, the larger groups of the animal kingdom are taken up and described in lectures which are

illustrated by means of diagrams, models, or the objects themselves, and the students are required to make critical studies of typical animals of each group. The studies in Entomology are conducted in a similar manner.

The subject of Bee-Keeping is taken up quite at length; the different kinds of bees in a swarm, their habits, anatomy, and the mode of collecting the different products are all described and illustrated by means of elaborate models, while artificial swarming, the mode of hybridizing a swarm, and the advantages of the same, with the most approved methods now in use for the care and management of bees, are also fully described.

Comparative Anatomy; Mineralogy and Geology; Law; and the course in Science and Literature includes French and German, the general, mathematical, and most of the scientific studies of the agricultural course.

No one can visit this institution without being delighted and instructed.

It is gratifying to see how rapidly old prejudices against so-called 'book-farming' are giving away. Farmers could always see the advantages and propriety of higher education and book-learning for professional and scientific men, but could not or would not see any reason in the scholarly education of those who were intended for agricultural pursuits alone. If an educated or scientific man made a test of certain theories by an experiment and failed, it was hailed by the mass of farmers as an evidence of the truth of their dogmas that book-farming was all humbug. They failed to see that it would be no *experiment* at all, if all succeeded in each of their trials and tests of theories. And it is hard, even in this enlightened day to make our farmers believe that the only way to progress in agriculture is by constantly experimenting with seeds, plants, manures, soils, &c. Failures in one, often lead to wonderful

results in others. One failure often is the promoter and cause of other tests that are beyond measure successful. Who are to blame mostly for this suppression of agricultural light? The farmers themselves as a rule. In our own State, as seen in nearly all other States, the farmers in Legislative bodies, readily vote appropriations for general purposes of any character, but when an appropriation is asked for educating the farmers's sons, they, as a body, put their foot down on it, and if passed at all, it must be by the votes of liberal minded, educated professional men or scientists that usually hold the control by reason of their enlarged views, of every legislative body. I trust the day is near at hand when our farmers will be willing to uphold our agricultural institutions of learning, both by individual encouragement and by legislative endowments. W.

EARLY OPPOSITION TO REAPERS—Some of our readers would scarcely credit the fact that less than thirty years ago the first reaping machine introduced into Bucks County, Pa., was burned by a mob of laborers who viewed it as a device to take away their means of making good wages in harvest time by hand reaping. All that is changed now, and every appliance for lessening toil and cheapening the necessities of life is looked on as a public blessing, but the railroad, the spinning jenny, the sewing machine, and the reaping machine had all to overcome ignorant opposition at their introduction.—*Ex.*

THE Farmer's *Gazette* of Dublin, Ireland, in a late issue states the food equivalents of a pound of flesh as follows. "If you want a pound of flesh matter, true and dry—no waste—introduced into an animal, you can get it from 3 lbs. of decorticated cotton cake, from 4 lbs. of linseed cake, from 4 lbs. of rape cake, from 4½ lbs. of beans, from 5½ lbs. of undecorticated cotton cake, from 5½ lbs. of oats, from 8 lbs. maize, from 8 lbs. of locust beans, from 45 lbs. of potatoes, and from 130 lbs. of turnips. As to grass—1 lb. of flesh will be got from 35 lbs. of the best grass, from 30 lbs. of clover, and from 8 to 10 lbs. of hay, —*Maine Farmer.*

Farm Work for November.

While the greater part of Autumn has been favorable to many farm operations, the weather was so dry in August and September that the land in many localities could not be plowed or got in order for the usual time of sowing wheat, and hence its being sown has been uncommonly late, but we suppose all that is to be sown of this crop has been done, and we hope, well done. It should be borne in mind that no crop pays better than wheat for the care and judgment displayed in the proper preparation of the ground for its reception. The same may be said of RYE. It is even now not too late to sow rye, if the land be put in proper condition, tho' it is best to sow this crop early—if amongst the growing corn at its last working, or well cultivated between the rows in August, before the grass takes possession.

Tobacco.

The weather during this month is usually fine for curing tobacco. See that it has all the day air and sunshine possible. On the approach of damp or a rainy spell, or during high winds, the houses should be fastened up tight. It is too common an error to have the weatherboarding with a piece of one or more inches between the planks, or with windows open, a leaky roof, and other contrivances to let in dampness, rain and snow, and thereby secure more damage to the crop than it would cost twice over to remedy these defects. A tobacco house should have plenty of tight-shutting windows and doors, and be as weather proof as a dwelling, and should be under lock and key.

Corn.

Husk out and put in a corn crib as soon and as fast as it can be done when it is dry enough. Do not loft it when wet and separate the soft corn from the sound long ears. Neglect not to secure in large, well put up and tied shocks, the fodder, or haul and rick, close to your barnyard, all, or at least a large quantity, to be fed during bad weather in winter.

Stock.

Protect all stock against cold nights and stormy weather. Feed your milch cows high on pumpkins and vegetables, with some cow-feed or short corn. Your fattening hogs must be penned, kept clean and dry, well fed with a variety of grain, vegetables and swill. Allowed constant access to clean water. Give them rotten wood, charcoal and sometimes a little sulphur in their food, with a little salt daily. All stock should have a plenty of salt, and ashes sometimes mixed with salt.

Orchards.

Gather winter pears and apples, carefully, and put right away in good barrels and head up tight, set in a cool and dry cellar or in an open, airy room. Plant out more fruit trees of all choice sorts, if you have not already, an amply quantity of growing and bearing trees, of best variety of the different sorts of fruits. Plant nut-bearing trees, Chestnut, Filbert, Pecan, Walnuts, Shell-barks, &c.

Shelters.

Shelters of all sorts, ought to be put in order, or new ones made for the comfort of all kinds of stock when the cold rains and first snows come. It is the cold storms of late fall months, catching the stock, unprotected and shelterless, that do incalculable injury. Few men are aware of what they lose by not sheltering their animals earlier in the season than is the common practice.

Shelters should be made tight and comfortable, and open to the South, that is for 8 feet in height. For mules, such sheds are preferable to close stables, and for young stock and sheep. Long provender, such as corn fodder, can be fed more easily than in narrow stalls of the stables. Of course, this mode of shelter is suitable more especially to mild climates of the South, and even to most of the Middle States. As cheap as common plank is now, it is more economical to build such shelters with posts and boards than the old way of doing so, with brush, corn-stalks, straw, &c., which was both slovenly, ill-looking, and often very inefficient for the purposes intended. Cleanliness, air, light, and dryness, are essentials to the comfort and health of all animals. All which can be obtained by the structure of neat and well built sheds, saving the cost of the more costly stables, or pretentious barns, which are ornamental and useful, and proper if the owner can afford it.

Under these shelters should be a deep bed of dry leaves or straw which ought to be removed as often as they become wet or filthy, and a fresh supply provided. In this way tons of fine manure can be accumulated during winter, and the stock kept apart, which is often requisite. Colts of different sexes, brood mares, sheep, hogs and calves, each should be in separate lots or fields. All should have twice a week an ounce per head of salt and ashes mixed in equal parts. This mixture has been found excellent for the benefit and improvement of the condition of all farm stock during winter.

Ice.

See that ice ponds are in order and ice houses are clean, and all things prepared to embrace the

first good freeze that comes, which usually occurs fore the new year. Let not the first freeze pass without getting your ice. Comfort, and maybe health, next year will depend upon it.

Milch Cows.

Feed these generously, and make all the butter you can this month, for winter use

Garden Work for November.

Winter Spinach, Corn Salad and Winter Kale. See that all these are free from grass and weeds, the soil light and stirred with the rake. The plants must stand four inches apart, each way, in the beds, which should be four feet wide.

Asparagus Beds.—Cut down the haulm and burn it. Fork the bed over lightly, and free it from grass and weeds, then cover with rather coarse manure. A liberal spread of salt and some wood ashes may be also given, or at any time during winter or early in the spring. Now and again, in March would not hurt—it loves salt and potash.

Celery.—Attend well to celery; earth it up for blanching.

Endives—The same course as to celery pursue with the endive.

Small Salading.—Sow small salading in frames for winter us.

Raspberry Roots may still be planted.

Cuttings of Gooseberries, Currants, Grapes, etc.—Cuttings of these will strike well if planted in a warm situation and protected from the sun for a few days. Plant the cuttings up to one eye in rows eighteen inches apart, and the cuttings six inches apart in the rows. Those that take root should remain, kept free from weeds, until next autumn, when they can be taken up and trimmed and planted where they are to stand permanently.

Winter Cabbages.—Take these up and bury them or set in rows close together and build a fodder house over them, with a door at one end.

Destroy all weeds, and work up the vacant beds by deep spading. Sow agricultural salt at the rate of 5 bushels per acre over the newly spaded beds, and give them a heavy dressing of manure. Leave in the rough state until wanted in spring. The frost and the manure will dissolve all stiff clods and a hard clayey bed will become pulverized by spring like to an ash heap. By this fall work, labor will be saved next year, and a product obtained from a quarter of an acre, that under the old system would require an acre or more.

The Results of Fish Culture.

The Washington *Star* says:—One of the bulletins of the United States fish commission, recently issued, contains the following memorandum by Marshall McDonald of results of fish culture already attained:

CARP.

The carp, wherever planted under favorable conditions and receiving reasonable care and attention, have grown, bred and multiplied rapidly. Thirty thousand distinct bodies of water in every section of the United States have been occupied with this fish. These represent an aggregate area of 100,000 acres of waste water which have been converted to profitable, almost spontaneous, production, yielding, at a moderate estimate, 20,000,000 pounds of food per annum, and adding \$1,000,000 annually to the value of the products of the country,

BLACK BASS.

The black bass has been acclimated in all of the rivers of the Atlantic slope, and while not increasing the aggregate food product of the areas occupied by them, the introduction of this game fish has indirectly contributed to the prosperity of cf various sections by attracting sportsmen and summer residents.

TROUT.

The mountain sections of New York, New Hampshire, and Vermont have their game and fish well preserved through the efforts of the state fish commissioners; the trout streams being kept up by artificial propagation or planting, and by protection. The summer visitors who are drawn to this region by the fame of its hunting and fishing leave there annually \$15,000,000 according to the statement of the New Hampshire commissioner. The larger part of this is to be credited to the efforts in artificial propagation systematically carried on there.

CALIFORNIA SALMON.

The efforts to acclimate this species on the Atlantic slope and in the Mississippi basin have proved abortive, unfavorable temperature conditions, as I have elsewhere shown, having militated against success. This, however, is to be regarded as an experiment in acclimation rather than in fish-culture, the artificial propagating

and planting of this species in the Sacramento river having carried the annual production of that river up to double the volume it had before planting was inaugurated, and added to its aggregate value \$300,000 per annum.

WHITEFISH.

The propagating and planting of this species in the great lakes was undertaken in the face of a rapid decrease, which foreshadowed the exhaustion of these fisheries in a few years. This decrease has been arrested, and the product is again slowly on the increase.

SHAD.

The results of the artificial propagation and planting of shad cannot, in the absence of accurate statistics covering the whole coast, be definitely stated. There is no question but the production of the Chesapeake area as a whole is steadily on the increase, though causes determine local failures of the fisheries each season; local statistics, being the only measure of increase that we have, of course can furnish us no data by which we can determine the general advance in production. This, however, is shown by the decreased cost per pound of the shad from season to season in the face of a continually increasing demand brought about by increasing population and increased facilities for distribution, the price to-day in the markets of Baltimore and Washington being from \$12 to \$20 per hundred and from three to four cents per pound.

Common Sense Farming.

Is the title of an essay by "R" in the Southern World, from which we take the following sensible extract:

"As in animal life, so it is in plant life. There are certain elements that enter more or less into all plants or crops. As animals are, directly or indirectly, entirely dependent on plants for their appropriate food we find—as we would naturally expect—that plants generally, (especially the ordinary cultivated plants) contain the same elements that are present in the bodies of animals. Now, since plants grow in the soil and in the atmosphere, they must look to the soil and atmosphere for their appropriate food. If there is no plant food in the soil there can be no growth and no harvest. Aye, more, if one or more of the

necessary elements is wanting in the soil the crop will be as total a failure as if the seed had been planted on a bare rock or in a bed of clean river sand.

Now what are these elements of plant food? The principal ones are phosphoric acid, potash and nitrogen. There are several others, but as they are usually present in great relative abundance in most soils, it is not necessary to consider them. We will confine our remarks at present to the three first named—phosphoric acid, potash and nitrogen. These may be called the prime elements of fertility, because soils are usually more or less deficient in them, and they are sooner exhausted by continual cropping. Of these, nitrogen—though entering into most plants through their roots,—comes from the atmosphere above the soil, and by a proper course of farming may be replenished from that source indefinitely. The other two—phosphoric acid and potash—are found only in the soil itself, and the supply can be increased only by adding them in the form of fertilizers, or by rendering the supply already in the soil soluble and available."

COTTON-SEED OIL.—The manufacture of cotton-seed oil is a great industry in the South. There are factories in all the Southern States except Florida. Texas has twenty. The oil is used for the table and for illuminating purposes.

THE MARYLAND FARMER.—We have received this book for October. The venerable editor (Mr. Whitman) gives a very interesting account of his recent trip in this number. Every farmer ought to have just such a book, when it can be had for the low price of \$1 per annum, as it gives them valuable information. Published by E. Whitman, Baltimore, Md.—*Frederick Examiner.*

Young Men!—Read This.

The Voltaic Belt, of Marshall, Mich., offer to send their celebrated Electro-Voltaic Belt and other Electric Appliances on trial for thirty days, to men (young or old), afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk incurred, as thirty days trial is allowed. Write them at once for illustrated pamphlet, free.

For the Maryland Farmer.

Light in the Horse Stable.

JOHN M. STAHL.

This is an important matter often overlooked. The result is many blind horses. The agricultural papers tell the farmer time and time again to make the stable warm. This is right. The horse stable should be warm. The horse requires quarters warmer than any other domestic farm animal. His body is not compact, contains a comparatively small proportion of fat, and horses do not lie close together as some animals do, the heat of one body being retained by contact with others. But the fault is almost universal of making the stable dark at the same time it is made warm. To make it warm it must be made tight. Every crack and hole is stopped. The windows are closed with a sliding or swinging door of wood which excludes all the light. Here is where the trouble is. The horse is in darkness. The eye has wonderful powers of adaptability. It accustoms itself to circumstances but not suddenly. When the horse stands in a dark stable its eye becomes adopted to the darkness. We should commonly say that its eye was weak. Then the horse is led into the light, not unlikely the dazzling light of the sun's rays reflected from snow. This is trying to a strong eye accustomed to ordinarily brilliant light. What must be its effect upon the weakened eye of the horse? Certainly injurious. But every organ suffers as well as the eye, though perhaps not so severely. Light is one of the necessary conditions of health. Plants kept in the dark lose their greenness and cease to grow. Brought to the light they regain their color and health. People who live in dark tenement houses are pale and sickly; those whose occupations bring them much into the light are rosy and robust. The general health of the horse confined in a dark stable must suffer.

What is the remedy? It is easy. Put a few panes of glass into the stable windows. These will exclude the cold as well as boards. Yes, they will admit warmth as well as light. They will cost only a few cents. You can make no better investment. Try it. My word for it, that you will never take them out. Your horses will be more healthy and their eyes stronger. Think about it. Take a common sense view of

the situation. That is the trouble. You have never thought of it before. Everybody has dark stables. That does not lessen the evil. Put glass in the windows as you do in your house.

For the Maryland Farmer.

The Atlantic Marl Beds.

Extensive beds of a calcareous material called marl, that has been found to be a very valuable fertilizer, existing throughout eastern Virginia and North Carolina, and in fact are found at intervals all along the Atlantic seaboard, from New Jersey to Florida. Thus we have ready to hand, and but a few feet beneath the surface, in some instances even upon the surface, a source of manurial wealth of priceless value to the farmer, and yet so cheap that all who will work to dig it may have it in any desired quantity. Having been denied other minerals and metals, nature seems to have given us this to compensate for them all, as by it we may enrichen our lands, and make them yield in their golden harvests of grain and fruit that wealth which others dig from the bowels of the earth.

Marl is a species of lime, and lime in any of its forms, with vegetable matter, will render any soil productive. Fortunately, too, we are at no loss for the vegetable matter to use in conjunction with the marl. We have it in abundance in the forest mould and swamp and marsh mud of our section,—or may supply it readily and cheaply by sowing some green crop to turn in upon the land, such as peas, clover, millet, oats, and rye. Having these things in quantities almost inexhaustible, and lying adjacent to almost every farm, why will not our people utilize them before spending such vast sums for commercial fertilizers, that can never permanently improve their farms?

There are millions of golden dollars stowed away in the marl beds of these Atlantic States—dollars that farmers have not been attentive enough to dig out and utilize. Along the larger rivers this marl crops out at the surface in numberless places, so that the farmer has nothing to do but to place his cart alongside, dig down with pick or grubbing hoe, shovel it in, and take it away to the fields. In many cases the marl lies within the enclosure, even by the fieldside, so that the distance to cart it is but trifling,

and a great deal can be got out in a short time. This is the yellow marl, composed of shells in different stages of decomposition, and of yellow sand or clay. It is said to be the most active of all our marls, and somewhat less of it is applied per acre. The shells are in a finer state than is the case with other marls, and hence its value is somewhat greater. Further inland occurs the blue marl, lying a few feet beneath the surface of the swamp and bottom lands, and which has to be dug out at dry seasons, when there is not water enough to interfere materially with the digging. Even then it is usually necessary to erect a rude sweep and pole, and lift the inflowing leakage from the pits with buckets. This marl is more troublesome to get out, but it is frequently very rich in carbonate of lime, and hence pays well for all that it costs.

The value of all marls of this class—shell marl—is determined by the quantity of decomposed shells it contains, and may be tested in a rude way by placing a handful of it in strong vinegar. If the lumps fall to pieces, readily, and there is considerable effervescence, it is good—otherwise there is too much clay, sand, or other inert matter, and it is generally rejected. Any form of this calcareous earth, however, makes a tolerable fertilizer, and will well repay its extensive use.

The best way to use marl is through the compost heap, but this necessitates three handlings where otherwise one will answer. The readiest and least expensive mode is to cart it at once from the pit or bank to the field, and spread it upon the surface just plowed down to a green crop, or use it with woods' litter or swamp muck. From one hundred to one hundred and fifty or two hundred bushels per acre is considered a suitable application. More than this might "burn" the land less would not be very effective, though any quantity will do some good.

With this most excellent and cheap fertilizer, our tidewater section ought to become as rich as the valley of the Nile, and would if it were more extensively and frequently used. Is it wisdom to ignore the native resources because art offers us other helps?

B. W. J.

ENSILAGE.

Any kind of fodder plants can be preserved in a silo, but what is to come out of it will depend very much on what is put into it. This much may be considered certain, that no more food can come out of a silo than is put into it. When the life of vegetation ends there is an end to the increase of food in it, and all changes thereafter occurring tend to diminish rather than to increase the sum total of food constituents in contains. Changes may occur, as by cooking or fermenting, by which some portions of food may become available that would not be available without such change, but any absolute increase of food is impossible. If poor food is put in, it will be poor food when it comes out. It should be borne in mind that the great value of a silo consists in *preserving*, not in *increasing* it, and that whoever expects to take out of a silo more than he puts in, will be expecting an impossibility.—*Nat. Live Stock Journal*.

MUCH has been said as to the amount of ensilage that can be produced on a given space. A correspondent of the *American Cultivator* writes:

"On a piece of land measuring about three-fifths of an acre, where sufficient hay would not have been raised to feed a cow over four or five weeks, there will be a growth of ensilage corn enough to keep two cows from November till next May through the use of the silo."

PRESERVING CLOVER WITHOUT A SILO.—Dr. Voelcker, the English scientific agricultural authority, mentions in a British journal a most (as he explains) excellent way of putting up clover in a green state without a silo. The clover is brought in from the field and placed upon the mow, alternating each layer of a foot or so in depth with a strata of dry straw, saved over from a previous year for that especial purpose. The experiments showed that the "sweating" of the clover and the absorbing of this surplus moisture of the straw increased the digestibility of both and leave it a distinctive and superior food value. It would be supposed that there would be some loss in carbonaceous matter, as heat is produced from this source, but the reducing of the wood fibre of the clover and

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straw into soluble food more than made up for the loss. It is to be presumed that a big barn floor could be made serviceable in putting up a large amount of corn fodder after this method and thus extend the grain feeding of the stock far toward winter. Quite possibly something like this may be chanced you and the benefits of ensilage secured without the present expense of stone pits, valuable machinery and the outlay of an army of men and teams drawing the ensilage of the pits. The experiment need not be a costly one and is worthy of trial.

Deer Creek Farmers' Club.

A HANDSOME, WELL IMPROVED FARM.—
CAN LANDS BE MADE RICH WITH ARTIFICIAL FERTILIZERS?—AN INTERESTING DISCUSSION.

As usual, the Belair papers give an admirable report of the proceedings of this notable club of Harford County, from which we make the following extracts:

"The Deer Creek Farmers' Club met last Saturday at the residence of Messrs. Parker H. and James Lee. Mr Lee's farm comprises over 225 acres, nearly all of which is in grass, the grazing of cattle being a specialty. Mr. James Lee also farms two adjoining places, and altogether has the care of nearly 500 acres of land. The home farm is one of the finest in the State. The fields are admirably situated, with water in all of them, and the farm buildings are large and well arranged for the accommodation of a large number of cattle.

The club in a body looked at and admired Mr. Lee's cattle, and upon re-assembling at the house the committee of inspection, consisting of Messrs. Benj Silver, Jr., S. B. Silver and B. H. Barnes reported. Mr. B. Silver said this might be called the model farm of Harford county. Mr. Lee lately sent away about 18 fine fat cattle and has as many more ready to go. The most of the latter will be shipped to Europe. He also has a nice lot of stock cattle, 60 in number, and 20 more on an adjoining place. A yearling calf was pointed out which weighs over 900 lbs. Mr. Lee has made several improvements since the club last met at his place. He is building a new dwelling house on a beautiful site; has

erected a Fairbanks' cattle scales, which he has protected by a substantial shed, and has put up 475 panels of new fence. Too much praise cannot be given him for the admirable manner in which all his farm operations are done and the excellent arrangement of the buildings.

The question discussed was: "Can land be brought to the highest state of fertility without the use of barn yard manure?"

Mr. James Lee said: Barn yard manure is the only reliable fertilizer. It needs no chemical test to tell you what effect it will have upon the crop to which it is applied, or whether or not it will benefit the land. This cannot be said of any commercial fertilizer. With no other fertilizer can you constantly crop, and at the same time improve your land. I know of no better illustration than our gardens and the large truckers around the cities. It is said that they cannot raise a very large crop of vegetables with any other fertilizer. So says Peter Henderson, and most of us are willing to take him for authority. The great point is to get all the benefit of all the manure. Then the question would naturally come up, when and how to apply this manure? The first point, when to apply the manure, I think is easily answered. As far as my experience and observation go, I would say, any time, from the first of January to the 31st of December. As to the best manner of applying manure, I should prefer spreading it on grass land, immediately after hauling it to the field. It is very important to spread it evenly. A great deal, perhaps one-half, of our manure goes to waste in the form of liquids. The question is, can our lands be brought to the highest state of fertility without the use of barn yard manure? I can answer that question by what I have observed around my own county. I know of no farm made rich except where cattle have been kept, either as a dairy or stock farm, and I have seen a number of them greatly improved by such treatment. As our question does not take into consideration the expense, I feel absolutely sure that it can be done by the use of barn yard manure if used in sufficient quantities, and I am very doubtful if any amount of commercial fertilizers, used alone, would bring our lands to the highest state of improvement.

"Benjamin Silver, Jr., would answer the question in the negative, but land can be

brought to a high state of fertility, if not the highest, by commercial fertilizers."

There seemed to be a diversity of opinion, but all seemed to hold that if barn yard manure could be had in abundance that it was all that was necessary to recuperate our worn out soils and that it was more reliable as a permanent improver of the soil. It seemed to be the general opinion that barn yard manure was the chief reliable fertilizer and to have this on the farm it was necessary to keep all the stock that the farm could carry.

"Geo. J. Finney's opinion was that if not limited in expense land can be brought to as high a state of fertility by bought fertilizers as by barn yard manure, and he did not see why it would not be as lasting. Take the same quality of land, and use the same diligence and foresight, and farm with the same care, and you will have equally good results from commercial fertilizers as from barn yard manure, but the cost would be greater. There is nothing equal to barn yard manure to make a crop, but he did not think it follows that bone dust would not bring as good a crop.

"Judge Watters remarked that all he might say would merely be a repetition of what Mr. S. M. Lee had said, but in a different form. In the first place we must determine what is meant by the highest state of fertility. If the standard is the raising of any particular crop all will agree that it can be done with artificial fertilizers; but his idea of the highest state of fertility is land that will produce large crops without any addition to it. Ideal farming would be to have land like Deacon Jones' wonderful one horse shay, that was so perfectly adjusted in all its parts that when it broke down, it went all to pieces at once. So with the land—to have it that the last crop would be as good as the first. Our poor land is poor not because it is deficient in all the elements of plant food, but because some elements are exhausted faster than others. The best way to restore fertility is to get materials from plants. If we could find out what was needed and get it from some other source you might make the land productive. In barn yard manure you get all the elements in the proportion required for plants. In bone dust, also, you restore to the land what

come from it. There is no virtue in the barn yard. If you allow me to use everything that constitutes barn yard manure, you may take away the barn yard. If you add the one or two elements lacking you will restore the fertility for some time but can't get the land to the highest state of fertility. As to enriching land by shading it, he thought that was due to chemical action in the ground itself.

"S. M. Bayless said his opinion was that you want barn yard manure to make land rich. He keeps cattle with that view.

"Judge Watters advised the application of bone dust, sowed on grass, one or two years before plowing for corn."

The whole discussion was very instructive and proved the importance of such clubs, and the reputation that this Deer Creek club has attained, with so much advantage to its county and to the whole State.

For the Maryland Farmer.

Weeds on the Farm.

It is a mystery to some farmers how weeds get on their land; to others it is very evident. Sometimes farmers are imposed upon when they buy their clover seed, and much that is foul gets in among it. A farmer recently said in our hearing that in a lot of clover seed purchased this spring was a quantity of turnip seed, which although not greatly detrimental, was nevertheless, out of place. A few years since his neighbor purchased a large quantity of mustard seed in the same way since the mustard is not out of the fields yet. In such ways weed seeds often find their way upon our fields. But more frequently they are preventable. Weeds along the highways are a nuisance, and should be cut before seeding. Where there is a law against both road-masters and farmers, too, allowing them to grow and go to seed, it should be enforced. There is no more noxious weed than the wild carrot and it is hard to kill. We know of fields that are literally covered with it. Constant mowing will in some cases kill it out, but more frequently it requires plowing and re-plowing to do it. Our crops would be much larger, could the weeds be banished, for they draw much nourishment from the soil which rightly belongs to the crop that is growing.

Chatham, N. Y. J. W. DARROW.

To Prepare Vegetable Mould Quickly.

As early as the leaves of trees can be collected, let them be brought in a considerable quantity, into a close place, and dressed up there in the form of a hot bed. Let this be well saturated with the drainings from the dung-heap, with suds from the wash-house, with urine from the stable and cow-house, where this latter article can be procured. Let this bed or heap be covered and lined with fresh stable dung to make it heat. When the heating is sufficiently subsided, let the leaves be uncovered and turned over, to mix the dry and the wet well together, and if moisture be required, let them have it of the same description, repeating the process till all be reduced to fine mould. This will be ready for use in two months from the time of collecting the leaves, and to prevent any waste of the liquid recommended, a layer of maiden earth, of two feet thick, should be made the substratum, which would receive any of the valuable liquid that would otherwise run to waste. Leaves of slow decomposition should be avoided, as those of the oak, &c., which, however, are the best for retaining heat in hot beds and pits. The leaves of Fir should also be avoided, but those of the Sycamore, Elm, Alder, Maple, and all the soft kinds are better suited for the purpose. This compost should be kept dry, in an airy place, and ridged up, so that the rain can not wash out the salts with which it abounds.—*Gardener's Record*.

THE *Farming World* says that home-made manure should be the farmers's text, and that the acreage under cultivation should be lessened to conform to the supply of fertilizer produced. One of the chief sins existing in our present farming system, it adds, is the habit of over-cropping. Another sin is our failure to inform ourselves concerning the nature of our soils. No man can farm intelligently who is ignorant of the character of his land, and who does not know what kind of soil is best adapted to the different crops.

DECORATIVE ART.—Explicit directions for every use are given with the Diamond Dyes. For dyeing Mosses, Grasses, Eggs, Ivory, Hair, &c. 10c. Druggists keep them. Wells, Richardson & Co., Burlington, Vt.

PLOWING.—Do not plow land until it is dry enough to be turned without packing like mortar under the trowel, and it is important to harrow before the furrows have dried much, else there will be hard lumps that will be difficult to dispose of all summer. It is believed that great mischief has been perpetrated by theoretical agricultural writers therefore by advocating deep plowing. A shallow soil may be deepened very gradually as the quantity of manure is increased, but not faster. The process of increasing the depth of the soil should be principally at fall plowing. It is believed that farmers generally do not plow enough; there is no labor lost by an extra plowing or two. A thorough pulverization of the soil is necessary for the best results at farming; some of the new harrows do excellent work in this direction and at small cost.—*Western Farmer*.

FARMING has not yet reached that state of development when you can say this or do that and you can have a crop of so many bushels to the acre. The fact is the farmer stands near to the forces of nature than other classes. Clouds, storms and winds and the mighty hurricane make war upon his labors, and the lightnings of heaven vent their wrath upon him, but the Good Book has promised seed-time and harvest, and as long as the sun gives heat and the clouds moisture he will continue the struggle.—

SIZE OF A TON OF HAY.—Hay differs very much in weight and solidity. Ripe timothy hay is the heaviest kind, and 400 cubic feet of it well packed in a stack or mow will make a ton. When cut in blossom 450 to 480 cubic feet are required to make a ton. If mixed with clover the bulk of a ton will vary from 450 to 500 feet, as the clover may be less or more in it. All clover hay requires 600 to 700 cubic feet for a ton, as it may be pressed more or less closely in the mow, or as it may be fine or coarse. Of the coarse, pea-vine clover, 800 feet will make a ton. About 700 cubic feet of mixed red and wild meadow grass hay will make a ton. Some considerable experience is needed in estimating the weight of hay to distinguish between the qualities and conditions.



An exact copy of a photograph of a vine planted in the spring of 1878, as it appeared with its first load of fruit in the fall of 1880, on 48 inches of bearing wood.

The Niagara Grape.

We are in receipt of a basket of Niagara grapes from the well known grape propagator, T. S. Hubbard of Fredonia, N. Y., who has been appointed by the owners, their general agent for the introduction of the Niagara. Mr. Hubbard writes us:—

We send you a basket of Niagara grapes grown by Jonas Martin of Brocton, N. Y., where, during the past four years over two hundred acres of this variety have been cultivated. Mr. Martin has 47 acres of them 10x10 feet apart, and given ordinary vineyard culture. The vines on which these grapes grew are four years old, and produced this season from 20 to 40 pounds per vine. The clusters average nearly one-half pound each, and are of large and uniform size. Several single clusters weighed a pound each. One four-year-old vine produced eighty-eight clusters which weighed exactly forty pounds, and notwithstanding this extraordinary yield the fruit all ripened and was picked at one picking less than a week after the first fruit was picked in the vineyard, and before Concords were one-third of them ripe. I think the Niagara will succeed as universally as Concord. It is a trifle earlier, is more vigorous in growth, is equally healthy and hardy and produces from fifty to one hundred per cent. more fruit. The skin is more firm, making it a much better keeper and shipper than Concord. In quality, many good judges pronounce it very fine, while others think it but little if any better than the Concord. We think it would generally be considered better. All agents who have authority to sell the Niagara will hold a certificate given under the corporate seal of the Niagara White Grape Co. To every vine sent out will be attached a small metal seal on which will be stamped the trade mark N. W. G. Co., a facsimile of which is shown on the certificate of agency. This will effectually protect at least all who read the newspapers from being swindled by spurious vines. See cut on opposite page.

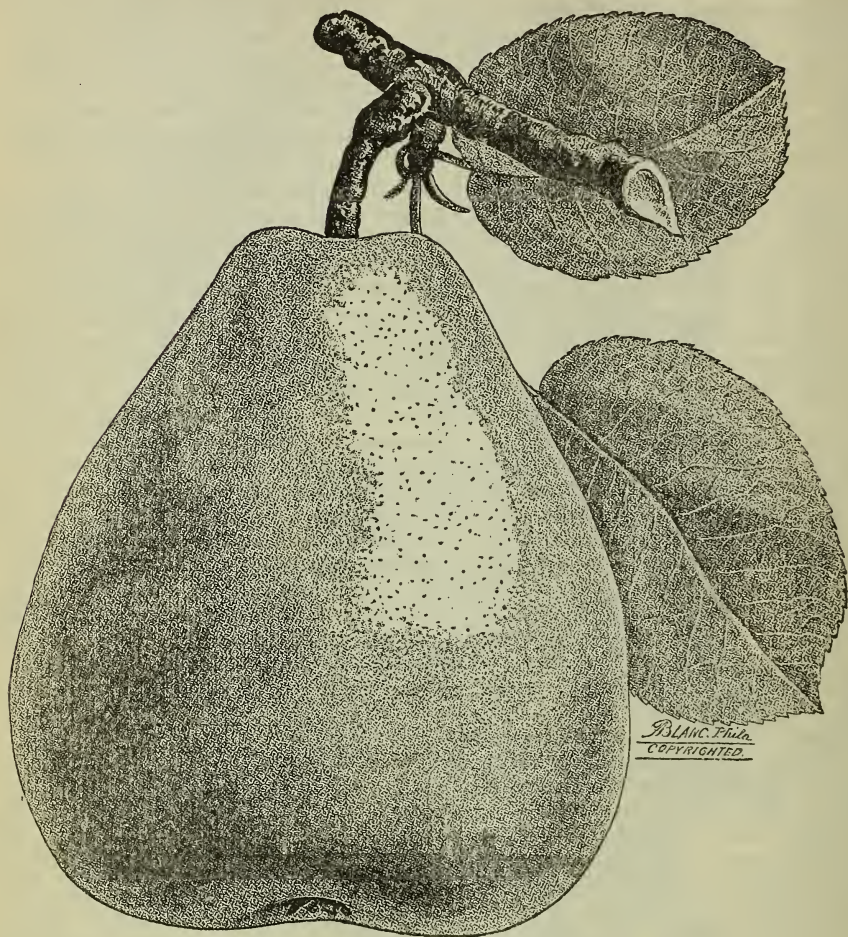
HIGHER PRICES FOR BUTLER.—All dairymen who use Wells, Richardson & Co.'s Improved Butter Color, agree that it increases the value of butter several cents a pound. It is pure and harmless, convenient for instant use, has no taste or odor, and give a clear, golden richness to the butter. It is the very best butter color obtainable, and it not expensive. In every State in the Union the demand for it is increasing.

RASPBERRY CULTURE.—Plant in the fall, say from the middle of October until it freezes up. Raspberries, gooseberries, blackberries, currants, etc., all start very early in the spring. In fall-set plants this growth is not injured; they will make nearly double the growth the first season that those will set in the spring.

In setting plants in fall, hill up over or around the plants as the case may be, six to eight inches. In the spring, level even with the surface; this throws the water away from the plants and thus prevents them from having or being thrown out by the frost. Do not set too deep, and be sure to make the earth firm around the plants. Cut back the canes to within six inches of the ground, as soon as planted. Raspberries can be grown without staking, if the following directions are observed. As soon as the canes reach a height of three or four feet, pinch off top of each, and as soon as lateral shoots have grown a foot or eighteen inches, treat them the same way, this makes a strong, stocky bush, able to support itself, and the fruit is increased both in size and quantity. Trim out the old wood during the winter or early in the spring.—*Ex*

WOOD ASHES IN THE ORCHARD.

Among the most common and most valuable of special manures I place wood ashes. The amount of ash and its relative composition vary with the kind and part of vegetable burned, but we may safely take the ash of the body of a beech tree as representing the average composition of wood ashes. One bushel of ashes represents about 2½ tons of dry body wood. Wood ashes contain all the required elements of plant nutrition except nitrogen. One hundred pounds wood ashes contain 16 pounds of potash worth 80 cents, 3½ pounds soda worth 2 cents, 67 pounds of lime and magnesia worth 8 cents, and 5½ pounds phosphoric acid worth 26 cents. If we had to buy in market in the cheapest form the manurial materials contained in 100 pounds ashes the cost would be \$1.16. Can you afford to throw away such valuable materials, or sell them for sixpence a bushel to the soap boiler? No argument is needed; here is the value and there is the selling price. Draw your own conclusions.—*Prof. Kedsie.*



THE COMET PEAR.

Healthy, Strong-growing tree; early bearer; fruit good size and quality; very early and profitable. Colors up beautifully.

A new candidate for supremacy in beauty and earliness in the pear line is the Comet; now first offered to the public by John S. Collins of Moorestown, N. J. It has been grown to a limited extent in Ulster County, N. Y., latitude 42 degrees, for a few years, the trees are very vigorous and healthy, bearing young and abundantly; fruit is of good quality, large size, splendid color, (red and yellow) has ripened and been marketed in July grown at the above named location and sold in New York market each year at high prices. The comparative value of early fruits may be estimated by the fact that Bartlett pears grown in Va. this year sold in N. Y. at \$7 per bushel.

For the Maryland Farmer.

The Keifer Pear.

Notwithstanding the prejudice of certain fruit growers and others against this remarkable pear at the time of its introduction, it is steadily working its way to the front as a profitable variety. Its value lies chiefly in its vigorous habit of growth, surpassing all others in this respect; its healthiness and comparative freedom from blight, so fatal to pear culture; its season of ripening, at a time when the market is not overstocked with pears; its good keeping qualities, being a good shipper, admitting of being sent across the ocean as readily as apples; and last but not least, its value as a canning pear, being unequaled in this respect. Much has been written and said against its quality as an eating pear. While it is not to be compared with the Bartlett and other highly flavored pears, it is when ripe of pretty fair quality, good enough for the season in which it ripens—October and November. In appearance it is remarkably handsome, of a golden color, large size, and as it is a generally accepted fact that a fruit sells according to its looks, and consumers are a long time in being educated in regard to taste, it is a safe pear to put upon the market. It can also, in my opinion be grown more cheaply than most other pears, as it is unrivalled in productiveness, bearing in the nursery rows at four years old as much as one-half peck or more of pears to the tree, this I have seen with my own eyes; six year old trees I have seen with over a bushel of pears, and grafts set in old trees would be loaded to breaking down the second year. In habit of growth it possesses all the vigor of the "sand pear from which it is descended, and makes one of the most ornamental of trees, having a deep green foliage, which remains fresh and green until long after frost. The disseminators of the Keiffer pear are proving their faith by their works, one of whom has an orchard of ten thousand trees, and those who are acquainted with it best are setting out all they can. Will it be overdone? We think not in our day.

I might also mention here that while the Keiffer does well as a standard, seldom if ever blighting; it is as complete a failure upon quince stock, and as a dwarf, as is possible for a pear to be, quince sap being poisonous to the Keiffer. This, however,

is a blessing, as the Keiffer comes into bearing so young as a standard that it is all unnecessary to dwarf it.

Harman's, Md.

R. S. COLE.

THE BLOOD-LEAVED MAPLE.—Maples with colored foliage, varying from the maple green, have been cultivated for years. There have been the dark-leaved Norway, the purple sycamore, and in later years the Colchican, all varieties useful on account of their color. The latest additions to the number are the various forms of the Japan maple. These are numerous, distinct and pretty, varying in color from variegated to blood red forms. One of the handsomest and hardiest of all is the one getting well known as the "Japan blood-leaved." Its leaves are a rich red—not purple as in the purple beech—and keep this color throughout the season. The color is most intense in the younger growth, lessening in intensity as the leaves get older, but never losing so much of it as to fail to attract a passer-by by its rich coloring. Some forms of the Japan maple are not robust growers, but the one of which we write is a vigorous kind, and soon forms a large shrub or tree. The leaves, besides being beautifully colored, as stated, are very much dissected, adding to the value of the tree. We owe much to Japan for many beautiful evergreen and deciduous trees, not the least of them being the blood leaved maple.—*Germantown Independent.*

AN INSECTICIDE.—George W. Walz writes to the *Fruit Recorder* that he has boiled leaves and stems of tomato plants until the juice is all extracted, and finds the liquor deadly to caterpillars, lice and many other enemies of vegetation. It does not injure the growth of plants, and its odor remains for a long time to disgust insect marauders.

OFFICEHOLDERS.—The office held by the Kidneys is one of importance. They act as nature's sluice-way to carry off the extra liquids from the system and with them the impurities both those that are taken into the stomach and those that are formed in the blood. Any clogging or inaction of these organs is therefore important. Kidney-Wort is Nature's efficient assistant in keeping the kidneys in good working order, strengthening them and inducing healthy action. If you would get well and keep well, take Kidney-Wort.

TO MEASURE A STANDING TREE.—Any person may easily get at the exact height of a tree when the sun shines, or during bright moonlight, by marking two lines on the ground, three feet apart, and then placing in the ground on the line nearest to the sun a stick that shall stand exactly three feet out of the soil. When the end of the shadow of the stick exactly touches the furthest line, then also the shadow of the tree will be exactly in length the same measurement as its height. Of course, in such a case the sun will be at an exact angle of forty-five degrees. By annual measurements it is interesting to compare the growth of trees from year to year.—*Youth's Companion*.

SALT.—Common barrel salt is nearly all pure salt though traces of other minerals exist. Fertilizing salt is prepared from the refuse salt of salt works, and contains the oxide of iron, potash, gypsum, sulphate and carbonate of lime, and grease, with which is mixed lime and wood ashes (all fertilizing materials) ground fine and mixed by machinery. It is unfit for any other purpose but fertilizing, and is sold either in bulk or in 200 pound sacks, though any quantity may be procured that may be desired.—*Western Rural*.

CANNING.—Corn was the first vegetable canned in Portland, Me., in 1854, the canning of tomatoes begun about the same time in Boston. The canning of fruits began about ten years later, and of meats about 1872. The canning of soups of various kinds—pea soup, terrapin, mock turtle, tomato, beef and chicken—appears to have originated in Boston, and during the war. The canned goods business forms about ten per cent. of the trade of the average retail Dealer.—*Coleman's Rural World*.

AGRICULTURAL PRINTING.

Having all the various Cuts needed for embellishment, we are prepared to Print and furnish Premium Lists, Tickets, &c. for Agricultural Fairs, with dispatch, elegantly Printed and Illustrated, upon very reasonable Terms, as we make Agricultural Printing a Specialty.

THE DAIRY.

RAISE THE CALVES:—The hint embraced in the following paragraph may be worth a good deal to dairymen who sell milk:

I have for two years raised all the young calves I could get in the fall at a low price. I take them away from the cow at once, teach them to drink, then scald one part of oil meal, one part of corn meal and eight parts of bran, wet enough to drink at first, but as soon as possible I feed them the same dry, as they are apt to scour on mash in cold weather. I have yearlings taken from the cow at three days old, which never tasted milk again, they weigh 750 pounds each, and are worth \$20 apiece. I consider that they cost me six dollars each.

REMARKABLE BUTTER RECORD.—The celebrated Jersey cow, Ida of St. Lambert, the property of Valancey E. Fuller, of Hamilton, Ont., has made the unprecedented record of a yield of thirty pounds two ounces of butter in seven days. The test was official and may be considered reliable. This remarkable cow was bred by R. H. Stephens, of St. Lambert, and was dropped February 18, 1882, got by Stoke Pogis 3d, out of Kathleen of St. Lambert 5, 122 by Lord Lisgar 1,066.

To this statement the *Prairie Farmer*, pertinently remarks:

"It would be interesting to know the cost of the care and keeping of this animal immediately before and during the period covering the test. Also what would be the effects of this course were it continued, on the general health, vigor, and usefulness of the cow."

In the finest quality of butter the salt is so evenly diffused that, as appears under the microscope, every grain is surrounded by a film of clear and transparent brine. This shows the necessity of avoiding the overworking of butter before the salt is added. In the first working every particle of milk ought to be got rid of, but enough clear water should be left to dissolve every grain of salt in twelve hours before the next working. If this is attained there is little danger of streakiness in the butter, but to get the best results the salt should be very finely ground.

Raising Calves on Skimmed milk.

Seeing in your issue of the 2d an inquiry for the best method of raising calves on part skim milk and the remainder to be made up of something else, I give my experience during the past winter with ten calves kept on the skim milk of three common cows. Beginning about the middle of October, the calf would usually be from two to five days old before taking from the cow, and then put it in a warm stable. I begin by giving new milk and a small quantity of skim milk, diminishing the quantity of new milk and increasing the quantity of skim milk. At the end of about one week I give skim milk alone. As soon as the calf begins to drink without the finger, I take a common dinner kettle about one-third full of water and one half pint of barley meal, ground fine, and cook till it boils; then remove it and mix with skim milk till you have the desired quantity that you wish to feed. Don't forget to let them have plenty of good clover hay before them, and also feed a small quantity of dry barley meal twice a day as soon as they will eat it. I have tried all the ways I have heard of or could devise and this has been the most successful with me, as my calves have not been troubled with the scours and have kept in good condition. A little out-door exercise in warm weather is beneficial.—CHARLES SCOTNEY, *In Farmers Review*.

Dairymen Should Provide Against Drought.

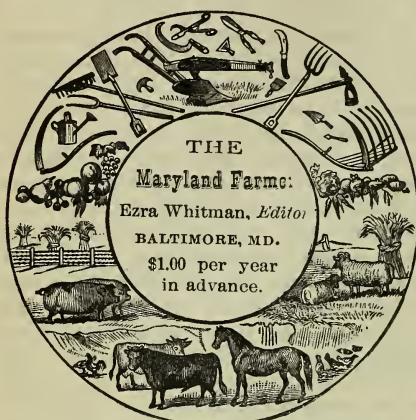
Though the early part of the season started off well for a good growth of grass, the middle part is, as usual, in many places, giving trouble by way of drought. There is very little territory in the United States which does not, to some extent, suffer every year for want of rain. We have watched the workings of the seasons for many years, and noted the fact that a summer very seldom passes in which there is not a serious shrinkage in milk from a lack of rain-fall, and noted also the unfortunate fact that very few dairymen are prepared for it. A few discreet men, as regularly as the year rolls round, no matter what the prospects for pasturage, prepare in advance for the drought which every observant man must expect will come near the middle of the season, and thus carry their herds through the summer without loss from lack of feed, but the great majority of milk-producers

allow the occasion to become the cause of the largest leak in their business.

As there is no loss from having a supply of extra feed on hand in case of need, since it can be saved for winter if not wanted in summer, it seems one of the most inexplicable things in the whole system of dairy farming that men who seem, in other respects, to have common prudence, should be so sadly at fault in this particular. There is but one other habit in dairy management which comes anywhere near it in shortsightedness and loss, and that is the practice which many have of treating their cows in winter so that they come through with staring coats and projecting bones. Both of these habits indicate a lack of judgment that is a disgrace, not only to the individuals indulging in them, but to the whole business with which they are identified. It is a good time now, while the milk pails are running low and the cows establishing a habit of diminished yields, to watch carefully and study the amount and cause of loss, with a view to a better appreciation of the situation—*National Live-stock Journal*.

A writer in the *Country Gentleman*, describing a cheap creamer, says he can get a tinner to make cans 20 inches deep and 8 inches in diameter, with bails and covers. Such cans are sold at shops here at 75 cents each. Next have the carpenter make a tank of pine planks two inches thick, in a substantial manner, as large as needed. A tank 8 feet long, 2 feet wide and 2 feet deep will give an abundance of room for the cans. A smaller tank can be used; but the larger one will hold more water, which will keep at a more even temperature than in the smaller one. The cans hold about two pailfuls, and your correspondent can easily estimate how many he will require. He will find it an advantage to have a few surplus cans, in case it is not convenient to skim just on time. The above outfit, with a liberal supply of cool water, will give as good results as any of the creamers offered, and not cost anything like the sums asked for the patented affairs

THE London Dairy Show two or three years ago made tests of the several breeds of cows to learn what per cent. of milk of each was butter, with the following results: Ayrshire, 5.57; Jersey, 4.74; Guernsey, 4.86; Kerry, 3.73; Brittany, 4.19; Holstein, 2.27.



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and for ten years the only one.**

EZRA WHITMAN, Editor and Proprietor.
COL. W. W. W. BOWIE, Associate Editor.

**141 WEST PRATT STREET,
BALTIMORE, MD.**

BALTIMORE, NOVEMBER 1st, 1884.

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Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

To Our Patrons.

As we are approaching the close of our volume for the present year, we are sure our old subscribers will see justice and propriety of renewing their subscriptions for 1885, and in doing so, settle all arrearages, if any are due us.

New Subscribers need not wait until January to send on their subscription for 1885, as they will, by subscribing *now*, receive the paper from 1st November 1884 to December 1886 inclusive, with the premium as stated below, all for \$1.00 *cash*.

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GARDEN AND FARM TOPICS, by Peter Henderson, Price \$1 50, or with *Maryland Farmer* for one year \$2.00. See notice in this number of this work.

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Such offers of premiums will reduce the price of the MARYLAND FARMER to almost nothing, postage thereon being pre-paid by the publisher.

**New First-Class Sewing Machines
at Half Price.**

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"MARYLAND FARMER."

CLUBBING.—For the purpose of aiding our subscribers to an economical benefit of other Journals in our line, we have consented to club with the following for 1884:

The Breeders Weekly Gazette, Chicago, Ill., price \$3.00; with Maryland Farmer, \$3.25.

American Angler, price \$3.00; with Maryland Farmer, \$3.25.

Live Stock Monthly, Portland, Me., price \$1.00; with Maryland Farmer, \$1.50.

Poultry Yard, Hartford, Conn., price \$1.50; with Maryland Farmer, \$2.00.

☛ All payable in advance.

SPECIAL NOTICE.

New subscribers who pay one year *strictly in advance*, will also receive free, in connection with the MARYLAND FARMER, twelve consecutive monthly numbers of the *Poultry Post*, an illustrated and thoroughly practical paper, devoted entirely to the poultry interest. The *Poultry Post* is not an advertising sheet, but a legitimate publication, containing in each issue twelve or more columns of just such practical information upon the breeding, rearing, feeding, housing and marketing of poultry, as is needed by, and useful to every farmer, and it will be furnished to new subscribers on the above terms.

☛ THE Maryland Farmer from now until January the 1st, 1886, for \$1.00, besides the premiums as stated on the opposite page, worth each from 25 to 50 cents as the selling price, but each one intrinsically worth more than \$1.00,—the price of 14 (monthly) copies of our magazine, which has never less than 32 pages of original or well-selected matter of instructive reading. Come one, come all, farmers to the font of pure, practical knowledge in farming and subscribe to the MARYLAND FARMER for 1885.

Timonium Fair.

This Baltimore County Fair we attended only one day, being deterred by the excessive heat, but we are glad to learn from the current news of the day that it was quite a success. We cannot see, from its location, in the midst of a great agricultural district and its proximity to the increasing and already great city of Baltimore, why it is, that it should not become one of the best fairs held by any county in the State. We were pleased to see some improvement in buildings, general arrangements and attention to the comforts of visitors. Our stay was limited and the weather oppressive, but we chanced to see its main features.

The exhibition of stock was on the whole very creditable, yet we missed the familiar faces and the stock of such neighboring owners of the finest Jerseys in the world—Messrs. Shoemaker, Seth, Watts, Phillips, Banks, and others, which made this branch of the fair rather meager in our eyes.

The household department of course reflected great credit upon the ladies of Baltimore county. The agricultural display was not such as would have been expected from so rich and highly cultivated a country as lies contiguous to Timonium.

The poultry was certainly not what we expected to find, in a neighborhood famous for the best in that line of business in our State.

The machinery was excellent, both in its quantity and quality. We casually saw the same, and noted that Messrs. Griffith & Turner had the largest variety, while the Baltimore Plow Co. had a large exhibit of the Roland Chilled Plow and other implements. Our friend Linton, who has Traction Engine "on the brain," was also present with his Traction Engine and Gang Plows, in all his glory! The persevering zeal of our friend in this, yet undiscovered line, must surely end in that success which

will bring fortune and fame to him, and comfort and wealth to the farmer.

One of the best and most interesting features was the exhibition of Bees, Bee-culture, &c., by Mr. Lake, who successfully illustrated the value of a system that brings both pleasure and profit to the possessor of one or more hives of this wonderful "busy bee."

There were various other exhibitions and a theatrical performance, all of which seemed to amuse and attract public attention far beyond the stock, poultry or household manufactures. It is a great pity that agricultural fairs are not confined to their legitimate sphere, but have to rely upon side shows—often demoralizing in their character—to gather a crowd sufficient to pay expenses of the meeting. If farmers can not be persuaded to hold annual fairs for their improvement, by seeing and hearing, in regard to stock-raising and the culture of crops, we think it were better to have no fairs at all, rather than to have exhibitions foreign to agriculture.

A HORTICULTURAL CURIOSITY.—Mr. Chas. H. Lake, of Baltimore county, Md., brought to our office the 13th Oct. several branches of peach trees bearing the second crop. The fruit was ripe but of small size, yet perfectly formed, with seed in centre, in a word, a perfect but diminutive peach; they were of Crawford's Early variety. We have seen and read of many other fruits bearing two crops a year, but never before saw the second crop the same year of the peach. The branches showed where the first growth stopped, and the second growth which was nearly equal to the first, had begun. As soon as the second growth begun, the first growth put out blossoms, and the fruit set and has matured. Mr. L. has two trees now in full fruitage. Has not the long drought had an effect upon the size of the fruit?

LADIES interested in Patchwork and Embroidery should read Brainerd & Armstrong's ad'vt.

Farmers National Congress.

—
Last year a "Farmers National Congress" was inaugurated in Kentucky. Much useful information was evolved by the discussions at this meeting, and this Congress is to meet this year on the 19th instant, at Nashville, Tenn. Mr. Robert Beverly of Virginia, is President, and Mr. H. C. Hallowell is the Vice-president for Maryland. This is not the first national organization of farmers in this country. About thirty years ago the U. S. Agricultural Society was established, and held at sundry places its regular annual meetings for several years, under such men as Presidents, like the venerable Marshall P. Wilder of Boston, Mass., and Gen. Tench Tilghman, of Maryland. These meetings at Richmond, Chicago, Cincinnati and other large cities were great successes until the civil war disrupted the association. After the war a national congress was organized, which held its regular meetings in Atlanta, Philadelphia, St. Louis, New Haven, and elsewhere, for full discussion of all subjects connected with agriculture. These discussions were both popular and useful.

Later on, or about 1879, there was a movement made in New York, and extended over the whole country, to form an organization for the benefit of agriculturists. A convention was called, which met in New York city, and was composed of delegates from almost every State and territory of the Union. The result of this convention was the formation of the *American Agricultural Association*, and the late John Merryman of Maryland was elected as its president. This association has always since then held its annual meetings for discussion of vital questions appertaining to agricultural pursuits, and has always been attended by the very best agricultural men in this country, and the fullest reports of said meetings have been published in the organ of the association—the *American*

Agricultural Review—a journal which is looked upon, both in this country and in Europe, as the leading agricultural paper in the United States, ever published as a monthly review of agriculture,

This is a subject we have long been interested in, having been a life-member of the first organization and attended nearly all the meetings held by these three national associations up to the present time, and often wondered why there was not more interest taken by the practical farmers of the country in such manifestly proper and important organizations, which have held sessions for days in each year, where harmony prevailed and a mass of useful knowledge was elicited.

After a few years there seems to be a falling off of attendance, and we attribute it to the great extent of our country, which often precludes men from attending these meetings, because they are so remote in many sections from the place of meeting.

We have made these remarks not discouragingly, but to show that we heartily wish this new organization much success, and to say that the columns of the MARYLAND FARMER are ever open to free discussion of all subjects connected with and calculated to promote agriculture. W.

THANKS.—To Mr. Coghill of Va., for his large present of nice sweet pickle put up in pint glass jars. By all who have partaken of them, they are much relished, and are pronounced the best of their class. Our people must be weaned from sour pickles before the sweet pickle can become popular, though this taste is growing daily and ere long the sweet will probably supersede the sour of the olden time.

JERSEY CATTLE.—Those wanting bargains in Jersey cattle are referred to advertisement of DE LAVAL JERSEY HERD in this issue. Bulls of the best strains of blood and all ages, from three months to three years, are offered at popular prices, together with a few choice young cows and heifers in calf to first class bulls. Address for catalogue, De Laval Jersey Herd, Glen Ridge, N. J.

Frederick County Agricultural Society.

This society held its 24th annual exhibition at Frederick city on the 14th and closed on the 17th of October, under favorable auspices of weather, and large attendance of spectators each day, there being, it is reported, not less than 18,000 present on Thursday. It was in every respect the most successful meeting the society has ever held. The attractions were numerous and very gratifying, among which we briefly notice, the large number of exhibits of fine horses, sheep, hogs and cattle of the various and high order of breeds. The fine display of fruits, vegetables and field products, all of which were highly creditable to the rich lands of Frederick, and to the enterprise of her people and to outside exhibitors. It is a subject of congratulation that this old society seems to grow yearly in strength and importance that her people are daily increasing in interest in her agriculture, and that outside of her limits, breeders of stock are each year adding to the list of exhibitors, to show their varied breeds of stock, and court the patronage of Frederick county farmers who wish to improve their stock by the infusion of new blood, and thereby add to her already well-earned reputation and to the individual wealth of her people.

Harford County Fair.

There were so many fairs in October that we could not attend them all, but we never like to miss the Harford County Fair, and on the 15th ult. we took an early train for Bel-air, which is one of the prettiest and healthiest villages in our State, where we spent the day most pleasantly with many old acquaintances. The people of this county make fair-week a real farmers' holiday. Carriages, wagons and all sorts of vehicles are brought into requisition, and each bringing a well filled lunch-basket, which is generously shared with their visiting friends as we can cheerfully testify. A dinner of this sort eaten on the fair grounds

is often more enjoyable than one in a crowded hotel. After our field-dinner we made an examination of the various exhibits, and found a very large and creditable display, consisting of 145 horses, many of which were fine specimens. The cattle were registered and unregistered, and grades of Shorthorns, Jerseys and Devons, in all 95 head. Sheep were excellent, and in force to the number of 33 pens, while the show of hogs was a small one, owing to the cholera scare. Poultry showed 181 coops of fine birds; Mr. Colton made the largest display, followed closely by Messrs. Bosley, Minnick and Haviland. There were 74 entries in machinery. There was a great and excellent display of apples and other fruits. Fine specimens of vegetables, amounting to 154 entries. As usual, the ladies of Harford made a grand display of needle work, &c., and of bread, cakes and pies and jellies, &c.

Free Transportation to New Orleans.

When it is known that the State of Maryland only appropriated \$5,000 toward the expense of an exhibit of the resources and industries of our State at the World's Exposition, where hundreds of thousands of people will gaze upon the possibilities of what our State can afford to settlers within her borders, the act of Mr. Robert Garrett, acting-president of the B. & O. railroad will be more fully appreciated. This company has made the generous offer to deliver *free* all State exhibits from Maryland and W. Va. to the World's Fair at New Orleans, beginning the 1st of December, 1884. This will be a saving of not less than \$1,000 to the State of Maryland. This high-toned liberality should never be forgotten by Marylanders.

THE Sixth Annual Meeting of the AMERICAN CLYDESDALE ASSOCIATION will be held at the Grand Pacific Hotel, Chicago, Thursday evening, November 13, 1884, at 7 o'clock. Charles F. Mills, Secretary, Springfield, Ill.

What Will be Seen at the "World's Fair" at New Orleans from December 1884 to May 1885.

The zoological garden in connection with the World's Exposition promises to be something fine. Professor Langhammer of New Mexico writes to the managers that he has formed a collection of bears, deer, wild cats, red foxes, antelopes, beavers, mountain lions and numerous small animals, and means to send them to New Orleans to be given to the citizens zoological garden when the exposition closes. All the wild animals common to the South and Central American states will be exhibited thereby forming an interesting feature of the great show.

The sugar exhibit at the World's Fair, of the products of Louisiana and Mexico promises to be the most complete yet seen. Visitors during December and January will be enabled to visit plantations not remote from the World's Exposition grounds and witness the manufacture of sugar.

The Indian Bureau will present at the World's Fair next December maps, charts and documents and information relating to Indian reservations, and by models and other appliances illustrate the advancement in Indian industrial education. The Pension office will exhibit all interesting features of the pension system, and probably some astonishing facts.

The Bureau of Ethnology will make a graphic display of all the races of the earth at the World's Fair at New Orleans. The Egyptian mummies who lived 3,000 years ago will be represented side by side with all the races left of the mound builders and other peoples now extinct.

The Bureau of Accommodation of the World's Fair is making at the present time a canvass of New Orleans in order to find out the names of reputable persons who desire to receive boarders and lodgers during the Exposition season. The register when completed, will be open to the use of strangers free of charge, and they can thereby see at a glance what accommodation can be had as well as what prices are charged in all respectable boarding houses.



PLYMOUTH ROCKS.—Property of Mr. C. H. Lake, of Towsontown, Baltimore Co., Md.

THE POULTRY-HOUSE.

We give the above as a faithful picture of a pair of Plymouth Rocks, as a specimen of a fine flock owned by Mr. Lake, who is well known not only as a chicken fancier, but as the Maryland progressive bee-raiser and furnisher of all the new appliances in bee-keeping. Mr. L. has the intention of shortly visiting Cuba in the great bee interest, and our readers will, we are promised, receive the benefit of his observations during his trip, not only upon bees, but other matters of interest to agriculturists. We here call attention to his advertisement in this number of the MARYLAND FARMER.

PLYMOUTH ROCKS.—A correspondent of the New York *Herald* writing of Plymouth Rock fowls says: "I have enjoyed this

fine modern and thoroughly American breed very much. It has been fashionable, and is still so, but that does not hurt it. In fact, the only disadvantage is that it makes very fine birds rather high priced. The plumage is that of the old Dominique. The skin is yellow, the legs are clean, the body well shaped and fowl heavy. The hens are early layers of large, brownish eggs, and the chicks are hardy, bearing the cold well, growing rapidly, showing more fat as broilers than most, and being solid and weighty for their age. The pullets lay early enough, and make good winter layers. It is a disadvantage that when crossed upon barn-door fowls of no particular breed, and also when crossed with established breeds, we get a good many black chickens, on account of the reversion to the Java—one of the original breeds used in the formation of the one we are considering."

Poultry Vermin.

Lice destroy more poultry than breeders are aware of. The whole feathered tribe seems peculiarly liable to be tormented with these parasites. There are recorded instances where fowls have been so covered with these loathsome pests that the natural color of the feathers has been undistinguishable. They are not alone annoying to the birds, but materially interfere with their growth, causing emaciation and death. They are the greatest of all drawbacks to the success and pleasure of the poultry fancier, and nothing but unremitting vigilance will exterminate them. Treatment: Whitewash frequently all the parts adjacent to the roosting poles; take the poles down and wash them with a solution of carbolic acid and water, in the proportion of one part of acid to four parts of water; mix some of the diluted acid with the whitewash. Flour of sulphur, placed in a vessel and set on fire in a close poultry house, will penetrate every crevice, and effectually exterminate the vermin. When a hen comes off the nest with her brood, the old nest should be cleaned out, washed with the solution and the straw burned, and new straw used in place. Sulphur or powdered tobacco leaves mixed with the straw will add to the health of the poultry. A little sulphur mixed in Indian meal also has a good effect. Dip the fowls in a solution of carbolic acid, in the proportion of one ounce to a quart of water, then place them in a warm, dry place to dry; this will sometimes have the desired effect. To guard against vermin, however, it should not be forgotten that cleanliness is of the utmost importance, and there should always be slacked lime, dry ashes, and sand easy of access to the fowls, in which they can roll and dust themselves. A few drops of tincture of iron in the water occasionally is beneficial. If the above suggestions with reference to cleaning the hen house are carried out before warm weather sets in, little trouble will be experienced from lice during the summer following.—W. D. D., in *Michigan Farmer*.

THE MARYLAND FARMER for one year with a valuable premium for the small sum of \$1.00. Farmers will confer a favor by mentioning this liberal offer to their neighbors and friends.

For the Maryland Farmer.

Saving Seeds.

It is an old truism that "like produces like," a fact that presents itself with much force to the attention of farmers. Because all plants "produce after their own kind" is a reason that farmers should carefully consider in two directions; one in that all seeds that are productive of noxious plants should be destroyed or prevented from coming to maturity. There is no farmer who for the sake of making employment can afford to allow any noxious plants to mature seeds to spread over his land to increase the crop an hundred fold and thus require great labor for their eradication, or else to enlarge the struggle for existence of these plants that are desirable. The second, is, that for the enlargement of crops in quantity and quality, the selection of seed should be carefully made. There is no crop grown that is perfectly uniform so far as quality is concerned; there is always good, medium and poor, a fact which calls into requisition a good degree of care in the selection and saving of seeds, because no farmer would expect to obtain the best results from using poor seed.

More difficulty attends selection in case of some kinds than that of others. Thus in the case of potatoes where the desire is to have smooth and well formed tubers, those bearing these characteristics can be chosen. And so too in making a selection of seed corn; at the time of husking, if care is used and those ears selected that are well capped over with grain, and if possible taken from stalks bearing two ears, the chances for a good crop from such seed are much better than would be the case if the seed was taken promiscuously from a pile of ears without regard to quality. The same rule would hold good regarding early ripening; if as soon as that point could be determined the selection was made, the succeeding crop might be expected to ripen proportionately earlier.

In the case of threshed grain the selection becomes more difficult, and yet by paying some attention to screening the smaller and poorly developed grain can be cast aside. It is said that is the case of grains great improvement has been made by passing through a field and selecting the earliest best developed heads and using for seed and from that product selecting again, and

so on until a really improved variety was secured.

It is certain that too great care cannot be exercised in the selection of seed. In the case of garden seeds the great trouble with those which produce their seeds annually, is that the desire for early vegetables, etc., is so great that the earliest and quite frequently the best of all kinds are consumed and the selection of seed is made as best it may be; as a consequence there is a natural tendency to deterioration when the domestic seed is employed from year to year.

Much more satisfactory results can be obtained by a purchase of garden seeds from reliable seedsmen than by saving ones own unless special care is taken and the earliest and best protected from the attack of the good housewife.

Columbia, Conn. WM. H. YEOMANS.

OUR LETTER BOX.

OCTOBER 7th, 1884.

EZRA WHITMAN, ESQ.—I desire to express my hearty thanks for your kindness in sending the MARYLAND FARMER; I greatly appreciate the courtesy. The work is full of interest to me, for I delight in noticing the progress made in agriculture and in the wonderful machines invented for the help of the workers. I am also greatly pleased with the *spirit* you put into the publication, and its fine typographical appearance.

We are living in a wonderful time. What brain force! What drives and push in business! And the farmer—the advanced farmer—is fast beginning to wake up to the splendor of his avocation. Splendor may seem a strong adjective, but really I see the splendid in its higher and nobler possibilities. There are many uneducated plodders on the farm, but the better class understand, or at least, are beginning to understand what it is to come into contact with soils and atmospheres, so richly freighted with God's good will to men, and still so full of marvel to the student farmer. The world has trodden the soils of earth, and breathed the atmosphere for many years ago, but the most advanced of us hardly realize the wealth of hidden wonders which these contain. The farmer is destined to rise in prominence and power, as scientific education shall enable him to advance more and more into these *wonderful resources of wealth*, and still *unexplored regions of mystery*. Oh! how

much is being overlooked in the common things—the barn yard, the potato patch, wheat and corn fields, and orchards.

Yours truly, R. H. P.

Silk Culture Note.

I see that the Department of Agriculture has published a silk culture circular, which will be of interest to silk raisers. It reads as follows:

DEPARTMENT OF AGRICULTURE.

Washington, D. C., Sept. 1, 1884.

All persons who are unable to buy silk worm eggs, and are yet desirous of engaging in Silk Culture, will be furnished with them by this Department gratuitously. In order that a proper amount may be sent, the applicant is requested to fill out the inclosed blank and forward it to me. Eggs will be distributed in December, and instructions as to their keeping will be sent with them. All applications should be made before then, as the worms are liable to hatch after that on being exposed to warmth, and therefore a certain risk attends their shipment.

GEORGE B. LORING,

Commissioner of Agriculture.

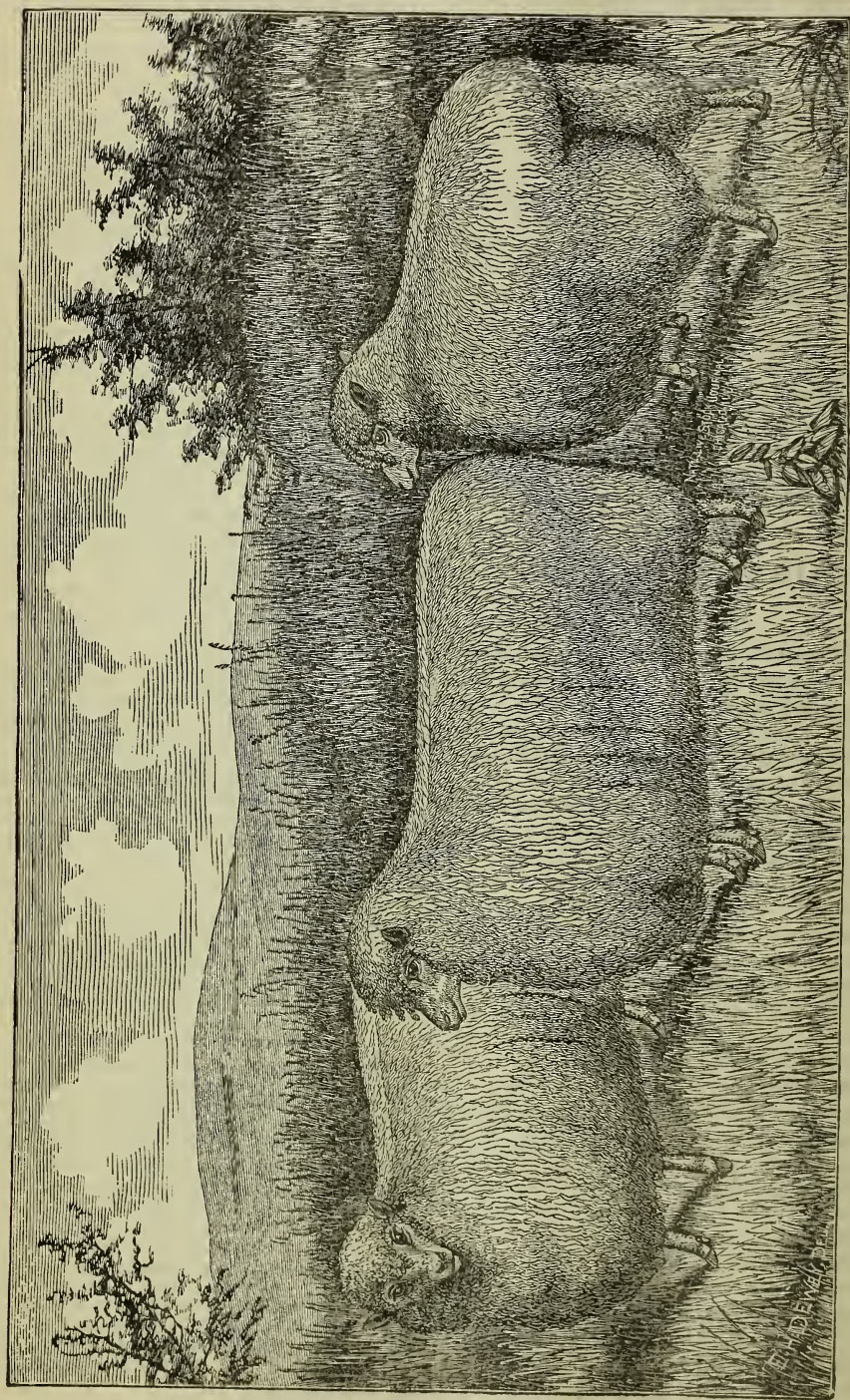
"The enclosed blank" gives information from silk raisers as to the amount of silk worm food that they have at their disposal, and also as to the experience that they have had in the industry.

MAGNAN.

DILLON BROS., of Normal Ill., have attended five fairs this season with their Norman horses, and were awarded fifty-four premiums; forty-five first, and nine second, seven of which were sweepstake premiums. The class of fairs they have attended has brought them in competition with the best stock in the United States and the large number of premiums they have taken speaks volumes for their stock. Horses that can carry away the prizes from the Illinois and Indiana state fairs, and the St. Louis fair, can compete successfully at any fair in the world. Dillon Bros. will have a number of their Norman horses on exhibition at the fat stock show in Chicago, in November, and from there they will go to the World's fair in New Orleans, where they will exhibit a number of their finest stallions and mares.

Consumption Cured.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also a positive and radical cure for nervous debility and all nervous complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper. W. A. NOYES, 149 Power's Block, Rochester, Y.—*



"THE THREE SISTERS," Cotswolds, raised by T. L. MILLER.

Live Stock Register.

On the opposite page we give a life picture of three full sisters as a pretty fair specimen of the splendid Cotswold flock of sheep owned by the Miller Company of Beecher, Ill.

Oxfordshire Sheep.

We have mentioned before the large and fine importation of F. C. Goldsborough of "Ellenborough," near Easton, Talbot Co., Md., of this coming breed of Oxfordshire sheep. It now gives us pleasure to record the premiums lately taken in the West by some of Mr. G.'s imported stock.

At Chicago, Ill., State Fair, they won: 1st prem., 2 shear rams, "Bicester."

1st " 1 " " "Baron Campsfield"

1st " 1 " ewe "Belle of Chicago,"

2d " 1 " " "Belle of St. Louis."

"Bicester" won sweepstakes prize as best ram, and "Belle of Chicago" best ewe (sweepstakes). Here they were shown in class with Shropshires, Hampshires and other Oxfords.

At Wisconsin State Fair, Madison, won 1st 2 shear rams; 1st on yearling ram; 1st on pen of three ewes, 2 yrs. old and over; 1st on pen of three ewes, 1 yr. and under two. No sweepstakes prize offered.

At Indiana State Fair, Indianapolis, "Baron Campsfield" took 1st as yearling, won 1st also on yearling ewes.

At the great St. Louis Fair, won 1st for 2 shear rams "Bicester;" 1st for 2 shear ewes, (pen of three); 1st for 1 shear ewes, (pen of three)

A private letter from Mr. G. states the following interesting facts:

"At all these fairs they class Oxfords with Hampshires and Shropshires; all that saved the Southdown was, that they had a separate class. My sheep were every where the feature of the shows, and crowds were constantly coming to see the "big sheep from Maryland."

For the Maryland Farmer.

Early Market Lambs.

The raising of early lambs for market, if rightly managed, is a remunerative occupation. But it requires much care. It is not well to delegate the care of the young lambs in the cold, raw weather of early spring to the "hired man" unless he is a very exceptional one.

This, from the *American Cultivator*, is timely:—

"If early lambs are wanted next spring, the ram should be put with the ewes this month. If the flock is large it will be better to keep him at the stable, giving him a little extra feed, and turning him out with them an hour each morning. Separate all old and unthrifty sheep and fit them for the butcher as quickly as possible. In sheep, as in other stock, it will pay to procure a good male from which to breed, though he may cost much more than an ordinary animal. A half dollar of extra value on each lamb will amount to a tidy sum in a good flock, and that is a difference easily made by the services of a good male."

There is little difference as to breeds for this purpose, although the usually plump Southdown is a favorite. Perhaps a cross from a grade Merino ewe and a Cotswold ram, will be as good as any that can be named. Or, just as well, with a Southdown or Shropshire ram. Ewes that are given to the production of twins should not be used for raising market lambs. One good plump lamb is much better for this purpose than two scrubs.

Whatever the breed, a compact form and vigorous constitution should be looked for rather than size. Ewes go about five months with young, hence if the ram is turned in now, lambs will be dropped in March. April, May and June are the months for marketing early lambs, and with everything favorable a 40-pound lamb will bring \$10—a pretty good sum.

J. W. DARROW.

AGRICULTURAL PRINTING.

Having all the various Cuts needed for embellishment, we are prepared to Print and furnish Premium Lists, Tickets, &c. for Agricultural Fairs, with dispatch, elegantly Printed and Illustrated, upon very reasonable Terms, as we make Agricultural Printing a Specialty.

Publications Received.

"OGILVIES HANDY BOOK OF USEFUL INFORMATION," is the title of a very modest little book we have received lately, containing 128 pages only, sent by mail for 25 cents, by J. S. Ogilvie & Co., publishers, 81 Rose street, N Y. This little book is a valuable compendium of much information to all classes and employments of men. The political, historical and Bibliographical information is alone worth more than the cost of the book, besides the many useful tables it contains, to be easily availed of by every sort of reader.

THE SILK WORM.—A manual for silk culture. Excellent and practical. Price 25 cents. Published by the "Boys' Silk Culture Association," N. W. Cor. 8th and Fairmount ave., Phila., Pa.

FROM Department of Agriculture, Bulletin 4, from Bureau of Chemistry. This is an interesting investigation of the composition of American wheat and corn, by C. Richardson, assistant chemist.

FROM the same, No. 3, "The Northern Sugar Industry, its progress during the season of 1883," by H. W. Wiley, chemist.

FROM the same Report for October on the condition of crops, yield of grain per acre, and rate of transportation companies for freight.

N. W. AYER & SON'S AMERICAN NEWSPAPER ANNUAL FOR 1884—Contains a carefully prepared list of all newspapers and periodicals in the United States and Canada, arranged by States in geographical sections, and by towns in alphabetical order. It will show you at a glance all the newspapers published in any one county in the United States and Canada. In it is given the population of every State, Territory, county, county-seat; of all the large cities and towns, and of almost every place in which a newspaper is published; also the Colored population by counties in the Southern and Southwestern States, and the Chinese population on the Pacific slope. It also gives the political majority of every State, Territory and County, and the number of votes polled by the Greenback party at the Presidential election of 1880. It is unequalled for fullness, correctness, compactness of statement, variety and value of contents, and freedom from favoritism or prejudice. Price \$3.00, carriage paid. Philadelphia, Pa.

Trial of Steam Plows.

WE, the undersigned, a committee appointed by the superintendent of the 12th annual exhibition of the Maryland State Agricultural and Mechanical Association in conjunction with the twenty-ninth annual exhibition of the Agricultural Society of Washington County, Md., including also Franklin Co., Pa., Carroll Co., Md., and Jefferson Co., W. Va., to examine the working of Traction Engine Gang Plows in the field near the exhibition grounds, report as follows:

There were three sets of Traction Engines with Gang Plows in the field,—one by the Geiser Mfg Co., Waynesboro, Pa., one by the Harrisburgh Foundry and Machine Co., of Harrisburg, Pa., and one by Frick & Co., Waynesboro, Pa. A field of about two acres was equally divided into three parts, and the exhibitors drew lots for position. Each engine had attached a gang of six steel plows with wrought iron beams, secured by wood pins, in such a manner, in the event of striking a stone, stump or other substance that could not be removed by the plow, all the damage that would be done would be the breaking of a wooden pin, while the plow passes over the impediment and is placed again in position in a moment, and fastened with another pin, for which purpose a small box of these pins is carried on the machine. Several of these anticipated accidents occurred during the trial, but causing no more delay than would occur with an ox or horse team coming in contact with such an impediment. Were it not for this simple device the great power of the engine might do much damage by breaking some parts of the machine itself.

Your committee followed, and closely watched the working of the machines during the trial. The plows run from 6 to 8 inches deep and turned a furrow from 12 to 14 inches, pulverizing nicely the ground leaving it in good condition. While all the machines did excellent work, the committee taking into consideration the character of the work done and the handling of the machine, &c., were unanimous in opinion that the Frick & Co. machine did the best work.

The ground was exceedingly dry and hard, and the trial satisfied your committee that steam plows were a success. The en-

gineers seemed to have the machines under as complete control as a driver has over a team of horses, while the machines move faster than a quick walking horse. There seemed to be much similarity in the construction of the three machines, yet each one differed from the others, which differences we have not time to explain.

We learn the price of each machine is about \$2,000; weight 7 to 8 tons, and can be worked by two men. They appear to be as easily managed as any plain engine, and we see no reason why steam-plows in a short time will not be as common as steam engines for threshing grain, and be worked after the same fashion, in moving about the country and plowing by the acre for the farmer, as steam threshers are now doing at so much per bushel of grain threshed.

We cannot conclude this report without expressing our great admiration of the superior manner in which the work was done and our wonder at the great amount of work they can perform.

Respectfully submitted,

EZRA WHITMAN,
D. HUYETT,
E. B. DANIELS,
WM. M. LANTZ,
SAMUEL J. BEITLER.

State and Counties Fair.

GREAT SUCCESS OF THE QUINTUPLE EXHIBITION OF THE STATE OF MARYLAND AND COUNTIES OF WASHINGTON AND CARROLL, MD.; FRANKLIN, PA., AND JEFFERSON, W. VIRGINIA.

The Maryland State Fair, with those of the four counties named above was held at Hagerstown, Md., on the grounds of the Washington County Agricultural Society, October 21, 22, 23 and 24. It was a success beyond all anticipation. There were 12,000 entries of all sorts, and a large attendance each day, the crowd on Thursday was variously estimated at from 25,000 to 40,000 people. Dr. Ward, State Veterinarian, was present to prevent any diseased animal from coming on the grounds.

Among the entries were choice specimens

of horses, sheep, hogs and cattle, of the respective famous breeds, also an unusual large exhibit of machinery.

We have not time or space to notice particularly the many articles in the various departments that called our marked attention. But may be excused for mentioning the beautiful herd of Devons exhibited by president Frank Brown, not entered for premiums; the Dutch Friesians of Dr. F. W. Patterson of Baltimore county, and the beautiful Angus Aberdeen cattle of Mr. W. H. Whitridge of Baltimore county. The grand show of poultry made by Hon. Geo. Colton attracted great attention. The racing was fine and there were many side-shows. Altogether it was a splendid exhibition, and the best ever held in the State.

Among the pleasant incidents was a fine rain on Wednesday, from 11 o'clock A. M. until night. It was such a relief to all after so long a drought that no one seemed annoyed, but all, ladies, children and men, wore smiling countenances, and seemed grateful and happy for the refreshing shower which paved the way for cool and clear weather the rest of the days of the meeting. Another pleasant incident was

THE CANE PRESENTATION.

During the meeting, our esteemed citizen, Mr. Hudson N. Ames, superintendent of the machinery department, was presented with a beautiful gold headed cane, by the exhibitors of machines. No better man could have been selected to fill so arduous and delicate a position, and we were pleased to find he was rewarded by those who know him best. This compliment paid him will be gratifying to his numerous friends as well as to himself.

We used in both going and coming the well managed Western Maryland Railroad, which passes through as lovely a country as is to be found on this continent. The varied tints of foliage that nature lends to the forest at this season—the rich and lovely valleys hedged about by lofty hills and

the exquisite Blue Ridge mountains—the well located and highly cultivated farms, all lent a peculiar charm, and evidenced the progress of agriculture and the welfare of the denizens of that section of our State. Here and there to be sure were eye-sores in broad rich fields, in the shape of limestone boulders that not infrequently cropped out to spoil the beauty of the scenery. Yet altogether the ride over this road was delightful and well repaid the visit to Hagerstown, independent of the great and gratifying sights the grand exhibition afforded. Perhaps the chief feature of the exhibition was the contest between the steam plows, a full report of the committee to award the premium will be found elsewhere in our columns.

Although this quintuple fair had many officers representing the several associations there was perfect harmony, and fraternity and the active kindness and attention of all the officers was duly appreciated and their successful management challenged the highest praise.

A \$2,000,000 Peach Crop.

The peach crop of the Delaware and Maryland peninsulars, this year has yielded \$2,000,000 to the growers and those speculators who bought in the spring. In round numbers, 2,100,000 baskets have been shipped by rail, and 1,200,000 by water, beside a considerable quantity has been dried and canned, of the latter less than the usual quantity this season. The crop was not near so large as was predicted and expected up to June, and the peaches were inferior, but prices ruled higher, averaging \$1.00 per basket for the best and 50 to 75 cents for the inferior.

"Introduction to the study of the Scientific Principles of Agriculture," is a learned inaugural lecture delivered at the University Museum, Oxford, England, by J. H. Gilbert, M. A. Ph. D., L. L. D.

DR GILBERT.

The eminent assistant of Sir J. B. Lawes of Rothamstead, Eng., made a short visit to our city recently and was much interested in the progress of the Johns Hopkins University and Hospital as well as other places in our city, among them some of the oyster and fruit packing houses, and much regretted not being able to visit some of the fruit farms of the Eastern Shore, of which he had heard so much. The experiments of Sir. J. B. Lawes and Dr. Gilbert investigating the laws of husbandry are known throughout the world, and many interesting subjects are annually brought before the public through the numerous papers published by them. Dr. Gilbert has recently read before the scientific association at Montreal a paper on the exhaustion of nitrogen in our soil, which will no doubt attract much attention among our agricultural readers, extracts from which we hope to be able to furnish in our next number. Dr. G. was accompanied by Mrs. G., who, like the Dr., was much interested with what little they saw of Baltimore, and thinks there is a bright prospect ahead for young men seeking scientific knowledge by embracing the great advantages of the Hopkins University and Hospital. The Dr. and his lady sail for home on the 1st from Quebec, and his numerous friends on this side will wish a safe and pleasant trip. Our friend Dr. A. P. Sharp and his son, who lately returned from Europe, were the escorts of Dr. Gilbert and wife, and extended to them much courtesy.

APPLES.—In Maine the crop of apples is an unusually large one, and in some localities farmers do not know what to do with their surplus, the price is so low. The *Winthrop Budget* says Baldwins are worth in Boston only \$1.25 to \$1.50 per barrel, hence it is likely large exportation of this fruit will be made to Europe the coming winter.

THE generosity of our young friend, Mr. W. L. Freamer, connected with this office, has enabled us often to have luscious specimens of clusters of grapes upon our office table. They are remarkable for juiciness and vinous flavor, being little receptacles of liquor, almost free from pulp and seed, with a skin so thin and delicate that it is swallowed before one knows it. The bunches are large and shouldered, weighing from half pound to 14 ounces. One stem was brought, not over 10 inches in length, that had 4 clusters or bunches of grapes on it, weighing in all, over two pounds. The fruit is small to medium and from pale pink to dark purple, according to state of maturity. Ripens from 20th of September to 8th of October, and hangs long on the vine. The name we do not know, but it tastes like the Madeira, yet is larger. The form of bunch is like the Herbmont Madeira also. It is a great grower and prolific bearer. One vine this year had over 200 clusters. If it were thinned properly, at the proper time, the fruit would be larger.


Catalogues Received.

From John Saul, Washington, D. C. his whole sale catalogue of fruit, evergreen and ornamental trees, shrubs, &c.

From Green's Nursery Co., Rochester, N. Y., their new catalogue and hints on fruit growing, which contains much useful and valuable information upon the subject especially important to young beginners in that line.

From H. S. Anderson, Union Springs, N. Y., a neatly printed and embellished catalogue of the fruits and flowers grown in the Cayuga Lake Nurseries, established in 1855.

NORTH CAROLINA STATE FAIR.—This great State Exhibition begun on the 21st ult., and to close on the 17th of November. If we judge from the number of visitors—75,000—the first few days, it will be one of the best fairs ever held at Raleigh.

 The Maryland Farmer and a valuable premium for \$1.00,

Cecil County Fair.

At its fifth fair, this association had a display of exhibits and number of visitors which surpassed any previous fairs that it has held since its inauguration. The grounds are improving in buildings, and other ways most rapidly. There was a fine display of stock, farm products, implements and fancy articles. While the household department was ahead of all former years, showing well for the ladies and fruit growers of that section of country. In poultry and pigeons the exhibition was beautiful. The exhibits of 60 coops of young fowls of almost every breed by Hon. George Colton, was of itself a poultry show of no mean order. He had no old birds, though he carried off in 1st and 2nd premiums a large number. In addition, there were other gentlemen who made large exhibits of choice specimens of various breeds of fowls and were rewarded by well-deserved premiums.


One of the interesting features was the exhibit of carp from the State Fishery. Mr. Hughlett represented Commissioner Humphries, and had charge of them.

The races were excellent and well contested. The great display of farm products of wheat, corn and vegetables was gratifying, because many specimens came from Pennsylvania and from Calvert county Md., and other places other than Cecil, showing that a great interest is properly increasing in these fairs by the enterprising farmers.

The perhaps greatest feature of this exhibition, and one which attracted great attention, was the large Bee tent of Mr. C. H. Lake, where the Apiary was shown in its fullest perfection, besides a numerous display of bees from various countries. In addition he had much machinery and requisites necessary to bee-culture;—also a pyramid of honey at entrance of tent, representing a crop of 3,000 pounds, the product of thirty swarms this season,

under the management of Lake assisted by a Maryland lady. Besides, Mr. Lake had on exhibition a large collection of interesting curiosities, among which was the Grecian hive, a present from King Otto, of Greece, to Richard Warfield—afterwards Richard Colvin; also the casket in which Colvin imported the first Italian bees that ever reached the shores of America. A collection of queen cages from Italy, of recent importation, and mail packages of bees through the Imperial German mail; every conceivable form of honey boxes, feeders, separators, etc., used by the late Colvin in the experimental yards of Sunny Side, extending over a period of nearly thirty years.

Really this was a remarkable fair and has called forth praises from all who participated and the highest eulogy from the Cecil County and other newspapers of the State.

 The Maryland Farmer for only \$1.00 per year with a valuable premium.

THE Commissioner of Maryland to the World's Fair at New Orleans, has appointed us to prepare and arrange for him the SEED DEPARTMENT of this State. It is desirable to exhibit the products both natural and cultivated of our State, and especially the seeds of the various sorts of Tobaccoes grown, also of all Cereals and Vegetables, as well as a small quantity of seed of the varieties of both wild and tame grasses found in the different sections.

As every State in the Union will be represented in this line, we feel some pride that Maryland should not be found wanting. We therefore have, without compensation, accepted this troublesome office, relying upon our friends over the State to assist us. Hence we ask you to aid the cause by sending to us such Seeds as you have or may procure. The quantities will vary from a gill to half a pint, so as to be put in glass bottles properly labeled.

Your compliance will much oblige,
yours truly, E. WHITMAN, SONS & Co.
141 W. Pratt St., Baltimore, Md.

EVERY FARMER!!

Whether LAND OWNER or TENANT, we think desires to know how to produce LARGE crops in 1885, cheaper than same crop cost in 1884. **Pure, Good and Cheap Fertilizers** solves the problem if intelligently applied *\$12.00 will buy a formula (520 lbs.) Powell's Prepared Chemicals, which, without any trouble you can mix at home with earth, making a Ton of Good Fertilizer, that will not only produce a large yield, but will permanently enrich the land. Leading farmers in every State as reference. Write for Memorandum Book of useful things for farmers to know. Free.*

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